

# Encouraging Curiosity with NLM's Online Toy box: Free and Reliable Health and Science Resources for K–5 Students



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Consumer Health Coordinator



# NLM Health Outreach

**“The National Library of Medicine (NLM), on the campus of the National Institutes of Health in Bethesda, Maryland, has been a center of information innovation since its founding in 1836.**



U.S. National Library of Medicine



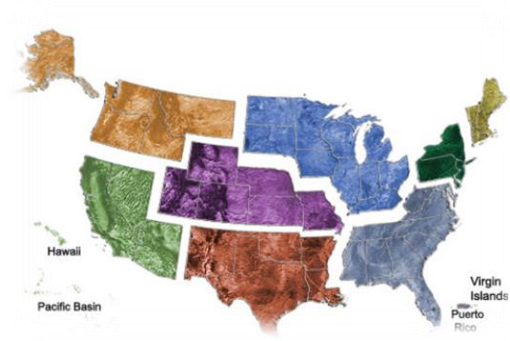
**In addition, the Library coordinates a 6,000-member National Network of Libraries of Medicine that promotes and provides access to health information in communities across the United States.”**

**URL for the National Library of Medicine**

Note: We cannot answer questions about individual medical cases, provide second opinions or make specific recommendations about therapy. Those issues should be discussed with your healthcare provider.

# Locate Your NN/LM Office

- 8 Regional Offices
  - Support Network members to achieve NN/LM mission
  - 5-year contracts



## Mission

- Provide K-12 educators, public library staff, health professionals, and the general public with equal access to and training on health and science resources

**Join the NN/LM Network**

**URL to locate your Regional Medical Library**



# NLM K-12 Science and Health Education Topics

Biology

Careers

Environmental Health Science/Chemistry

Forensics and Medical Technology

General Health

Genetics

[URL](#) for K-12 Science and Health Education





# General Health



**Health Topics**

**Drugs & Supplements**

**Videos & Tools**

**Español**



**Health Topics**

Find information on health, wellness, disorders and conditions



**Drugs & Supplements**

Learn about prescription drugs, over-the-counter medicines, herbs, and supplements



**Videos & Tools**

Discover tutorials, health and surgery videos, games, and quizzes



**Medical Encyclopedia**

Articles and images for diseases, symptoms, tests, treatments

**Medical Dictionary from Merriam-Webster**

Look up in Dictionary

GO



**Have a doctor's appointment?**

Visit our **Talking With Your Doctor** page

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II

**Today's Health News**

[2nd U.S. Ice Cream Maker Pulls All Products After Listeria Threat](#)

[Daily Aspirin Taken by More Than Half of Older U.S. Adults](#)

[Very Young Kids Often Use Tablets, Smartphones, Study Finds](#)

[More health news](#)

**Stay Connected**

Sign up for MedlinePlus email updates **1**

Enter email address

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**NIH MedlinePlus Magazine**

Read the **latest issue**



**Clinical Trials**

Search [ClinicalTrials.gov](#) for drug and treatment studies.



**Easy-to-Read Materials**



**Organizations and Directories**



**Health Information in Multiple Languages**



**MedlinePlus Connect for EHRs**

URL for MedlinePlus

Grades	1 <sup>st</sup> Topics	2 <sup>nd</sup> Topics	3 <sup>rd</sup> Topics	MedlinePlus Topic Pages
K	The five senses and associated body parts	Hygiene, Diet, Exercise & Rest		Children's Health; Child Nutrition; Germs and Hygiene; Exercise for Children
1	Introduction to the systems of the human body and associated body parts	Taking care of your body: Germs, diseases, and preventing illness		Anatomy; Germs and Hygiene; Flu;
2-3	Digestive and excretory systems	Taking care of your body: Healthy eating and nutrition	Muscular, skeletal, and nervous systems	Digestive Diseases; Gas; Child Nutrition;
4-5	Circulatory system	Respiratory system	Endocrine system	Asthma; Blood; Diabetes;

Adapted from Exemplar Texts on a Topic Across Grades ([URL](#))



# Sleep Disorders

## On this page

### Basics

- [Summary](#)
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- [Alternative Therapy](#)
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### For You

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- [Teenagers](#)
- [Women](#)
- [Seniors](#)
- [Patient Handouts](#)

## Summary

Is it hard for you to fall asleep or stay asleep through the night? Do you wake up feeling tired or feel very sleepy during the day, even if you have had enough sleep? You might have a sleep disorder. The most common kinds are

- [Insomnia](#) - a hard time falling or staying asleep
- [Sleep apnea](#) - breathing interruptions during sleep
- [Restless legs syndrome](#) - a tingling or prickly sensation in the legs
- [Narcolepsy](#) - daytime "sleep attacks"

Nightmares, night terrors, sleepwalking, sleep talking, head banging, wetting the bed and grinding your teeth are kinds of sleep problems called parasomnias. There are treatments for most sleep disorders. Sometimes just having regular sleep habits can help.



ADAM

Get Sleep Disorders updates by  
email

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## MEDICAL ENCYCLOPEDIA

[Aging changes in sleep](#)

[Changing your sleep habits](#)

[Drowsiness](#)

[EEG](#)

[Idiopathic hypersomnia](#)

[Irregular sleep-wake syndrome](#)

[Isolated sleep paralysis](#)

URL for Sleep Disorders (MedlinePlus)





**THE SLEEP CARD GAME** - These cards show matching pairs of actions. One action in each pair helps you get sleep. The other action can keep you from good sleep. Print this sheet of cards. Cut them out along the lines. Shuffle the cards and turn them face down. Each player picks up two cards. If the cards match, the player keeps the pair. If they don't match, replace the cards. The player with the most matched pairs wins!



[URL](#) for Sleep for Kids (National Sleep Foundation)



# Germs and Hygiene



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Get Germs and Hygiene updates by email 

## Summary

When you cough or sneeze, you send tiny germ-filled droplets into the air. **Colds** and **flu** usually spread that way. You can help stop the spread of germs by

- Covering your mouth and nose when you sneeze or cough. Sneeze or cough into your elbow, not your hands.
- Cleaning your hands often - always before you eat or prepare food, and after you use the bathroom or change a diaper
- Avoiding touching your eyes, nose or mouth

Hand washing is one of the most effective and most overlooked ways to stop disease. Soap and water work well to kill germs. Wash for at least 20 seconds and rub your hands briskly. Disposable hand wipes or gel sanitizers also work well.

## MEDICAL ENCYCLOPEDIA

[Cleaning supplies and equipment](#)

[Cleaning to prevent the spread of germs](#)

[Isolation precautions](#)

[Personal protective equipment](#)

[URL](#) for Germs and Hygiene (MedlinePlus)





# Sample Germs & Hygiene Resources (Grade 1)



Wash Your Hands



Scrub Club



Put Your Hands Together

[URL](#) for Wash Your Hands-Video (CDC)

[URL](#) for Scrub Club (NSF)

[URL](#) for Put Your Hands Together-Video (CDC)



# Child Nutrition



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email

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## Summary

A healthy diet helps children grow and learn. It also helps prevent [obesity](#) and weight-related diseases, such as diabetes. To give your child a nutritious diet

- Make half of what is on your child's plate fruits and vegetables
- Choose healthy sources of protein, such as lean meat, nuts, and eggs
- Serve whole-grain breads and cereals because they are high in fiber. Reduce refined grains.
- Broil, grill, or steam foods instead of frying them
- Limit fast food and junk food
- Offer water or milk instead of sugary fruit drinks and sodas

Learn about your children's nutrient requirements. Some of them, such as the requirements for iron and calcium, change as your child ages.

NIH: National Institute of Diabetes and Digestive and Kidney Diseases

## MEDICAL ENCYCLOPEDIA

[Age-appropriate diet for children](#)

[Cow's milk and children](#)

[Eating extra calories when you are sick - children](#)

[Food jags](#)

[Kwashiorkor](#)

## Related Health Topics

[URL](#) for Child Nutrition (MedlinePlus)





**KidsHealth**  
from Nemours

For Parents For Kids For Teens

Search here...

Kids Home



# DIGESTIVE SYSTEM

How THE BODY WORKS



SEE ALL PARTS

VIEW ALL MOVIES

URL for Digestive System-Video (KidsHealth)



# Asthma in Children

Also called: Childhood asthma



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## Summary

Asthma is a chronic disease that affects your airways. Your airways are tubes that carry air in and out of your lungs. If you have asthma, the inside walls of your airways become sore and swollen.

In the United States, about 20 million people have **asthma**. Nearly 9 million of them are children. Children have smaller airways than adults, which makes asthma especially serious for them. Children with asthma may experience wheezing, coughing, chest tightness, and trouble breathing, especially early in the morning or at night.

## MEDICAL ENCYCLOPEDIA

[Asthma - child - discharge](#)

[Asthma - children](#)

[Asthma - control drugs](#)

[Asthma - quick-relief drugs](#)

URL for Asthma in Children (MedlinePlus)







## Welcome to Lungtropolis

The city of easy breathing!



### Become an Asthma Control Agent!

New to the program?  
Register to become a new agent.

**Join Now!**

Don't want to register yet?  
You can still play but you won't be  
able to save your progress.

[Go Now](#)

### Log in to play!

Username

Password

Forgot your  
password?

**Click here.**

**Enter**

URL for Lungtropolis (American Lung Association)

# Bullying



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### Multimedia & Tools

- No links available

### Research

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## Summary

Bullying is when a person or group repeatedly tries to harm someone who is weaker or who they think is weaker. Sometimes it involves direct attacks such as hitting, name calling, teasing or taunting. Sometimes it is indirect, such as spreading rumors or trying to make others reject someone.

Often people dismiss bullying among kids as a normal part of growing up. But bullying is harmful. It can lead children and teenagers to feel tense and afraid. It may lead them to avoid school. In severe cases, teens who are bullied may feel they need to take drastic measures or react [violently](#). Others even consider suicide. For some, the effects of bullying last a lifetime.

*Centers for Disease Control and Prevention*

## Start Here

- [Bullying](#)  (National Institute of Child Health and Human Development)  
Available in [Spanish](#)
- [Bullying: It's Not OK](#) (American Academy of Pediatrics)

Get Bullying updates by email 

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## Related Health Topics

[Child Mental Health](#)

[School Health](#)

[Teen Mental Health](#)

[Teen Violence](#)

MedlinePlus links to health information from the National Institutes of Health and other federal government

URL for Bullying (MedlinePlus)





# Child Safety

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## Summary

As parents, we want to keep our children safe from harm. Take steps to keep your children safe:

- Install the right child safety seat in your [car](#)
- Teach children how to cross the street safely
- Make sure they wear the right gear and equipment for [sports](#)
- Install and test smoke alarms
- Store medicines, cleaners and other [dangerous substances](#) in locked cabinets
- Babyproof your home
- Don't leave small children unattended

## Start Here

- [Child Safety: Keeping Your Home Safe for Your Baby](#) (American Academy of Family Physicians)  
Available in Spanish
- [First Aid and Safety](#) (Nemours Foundation)
- [Parents: ABCs of Raising Safe and Healthy Kids](#) (Centers for Disease Control and Prevention)



### Get Child Safety updates by email

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### MEDICAL ENCYCLOPEDIA

[Bathroom safety - children](#)[Child Safety Seats](#)[Cribs and crib safety](#)[Preventing head injuries in children](#)

### Related Health Topics

[URL](#) for Child Safety (MedlinePlus)



# School Health

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### For You

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## Summary

Your child spends more time at school than anywhere else except home. Schools can have a major effect on children's health. Schools can teach children about health, and promote healthy behaviors. Physical education classes give children a chance to get exercise.

Schools work to

- Prevent risky behaviors such as [alcohol](#) and [tobacco](#) use, or [bullying](#)
- Encourage healthy habits like exercise and healthy eating
- Deal with specific health problems in students, such as [asthma](#), [obesity](#) and infectious diseases

The school building and environment should be a safe and healthy place for your child.

## Start Here

- [Safe Youth. Safe Schools.](#) (Centers for Disease Control and Prevention)
- [Staying Healthy in School: Kid-Friendly Tips](#) (Mayo Foundation for Medical Education and Research)



Get School Health updates by email



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### Related Health Topics

[Bullying](#)

[Child Safety](#)

[College Health](#)

### NIH MedlinePlus Magazine

[Asthma and Schools](#)

MedlinePlus links to health information

[URL](#) for School Health (MedlinePlus)



# Careers



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## Health Occupations

Also called: [Health careers](#), [Health professions](#), [Medical occupations](#), [Medical professions](#)

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#### For You

- [Children](#)



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MEDICAL ENCYCLOPEDIA

## Summary

Every day, around the clock, people who work in the health care industry provide care for millions of people, from newborns to the very ill. In fact, the health care industry is one of largest providers of jobs in the United States. Many health jobs are in hospitals. Others are in nursing homes, doctors' offices, dentists' offices, outpatient clinics and laboratories.

URL for Health Careers (MedlinePlus)



## Classroom activities

**How do you spend your time?**

Students will learn how to create and interpret a pie chart displaying how they spend their time.

Overview ([PDF](#))

Excel: Directions ([XLS](#)) Worksheet ([PDF](#))

Print: Directions ([PDF](#)) Worksheet ([PDF](#))

**Choosing a Career**

Students will research careers from among the 580 occupations listed in the Occupational Outlook Handbook.

Worksheet ([PDF](#))

**Graphing Prices**

Students will learn how to graph changes in price levels of goods in this real-world graphing exercise.

Worksheet ([PDF](#))

**The Price is Correct**

In this activity, students will learn about inflation and play a game to guess how the prices of common goods have changed over the past several years.

Worksheet ([PDF](#))

**CPI Inflation Calculator**

\$   
in 1953  
Has the same buying power as:  
  
in 2013

**Inflation Calculator**

Students will use the Inflation Calculator to learn how the buying power of the dollar has changed over the years.

URL for K-12 Games and Quizzes; URL for Student Resources;  
URL for Teacher's Desk (Bureau of Labor Statistics)



## Changing *the face* of Medicine

HOME  
RESOURCES

VISIT  
ACTIVITIES

PHYSICIANS  
SHARE your STORY



Discover the many ways that women have influenced and enhanced the practice of medicine. The individuals featured here provide an intriguing glimpse of the broader community of women doctors who are making a difference. The National Library of Medicine is pleased to present this exhibition honoring the lives and accomplishments of these women in the hope of inspiring a new generation of medical pioneers.



Explore *the* Exhibition

### ► VISIT

This exhibition at the National Library of Medicine closed on November 19, 2005. Its traveling exhibition [itinerary](#) is available online. Please refer to "On Exhibit at NLM" on the [Library's home page](#) for information on the current exhibition on display at the Library.

### ► PHYSICIANS

Perform your own customized database [search](#) to learn about the woman physicians featured in this exhibition. Learn about their sources of inspiration, the challenges they faced, and their accomplishments.

### ► RESOURCES

Students, find out if a [career in medicine](#) is for you through the guide to medical career Web sites. Teachers, print classroom [lesson plans](#) and view an extensive [bibliography](#) including books and videos.

**New Book! [Women Physicians and the Cultures of Medicine](#).**

[URL](#) for Changing the Face of Medicine







## Changing *the face* of Medicine

HOME

VISIT

PHYSICIANS

RESOURCES

ACTIVITIES

SHARE *your* STORY

Careers

Lesson Plans

Higher Education

Suggested Reading

### \* RESOURCES

The following resources have been assembled for students, teachers, and medical professionals to complement the exhibition.

### \* CAREERS

- ♦ Students and medical professionals—learn about steps you can take to join the field of medicine and to enhance your medical career. Explore links to Web sites that will provide you with all the information you need.

### \* LESSONS

- ♦ Teachers—bring the world of medicine into your classrooms. Lesson plans targeted for specific age groups within K-12 have been designed to enhance understanding of the physiology of the body and the field of medicine.

URL for Changing the Face of Medicine Resources



# Haz-Map



Hazardous Agents



Occupational Diseases



High Risk Jobs



Non-Occupational Activities



Industries



Job Tasks



Processes



Symptoms/Findings

**Haz-Map is an occupational health database designed for health and safety professionals and for consumers seeking information about the adverse effects of workplace exposures to chemical and biological agents.**

[URL](#) for Haz-Map



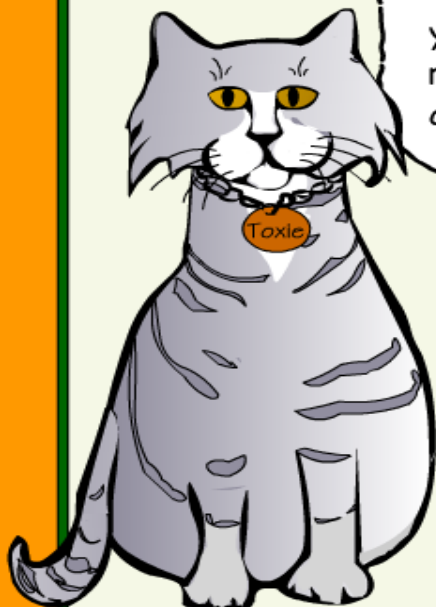


# Environmental Health



# ToxMystery

Español



Hi, I'm Toxie

Thanks for coming over. Can you help me find the hazards in my house? Start by clicking on a room.



Sound is on



National Library of Medicine

Parent Resources

For Teachers

Getting Started

Suitable for ages 7-11

[URL](#) for ToxMystery

Getting started:

Close

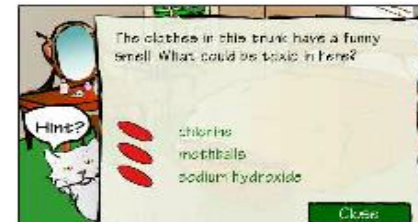
You can click on the rooms in any order



Roll your mouse over things in the house, and if it moves, click on it.



When the question box pops up, click on the answer.



If you need a hint, press on Toxie.



The scorekeeper will let you know if you have found all of the

Here's a bedroom!  
There are three hazards in this room.  
You have found 2.



Good Luck!



## ToxMystery Lesson Plan 1: Introduction to Common Household Chemical Hazards

**Grade Level:** 2-6

**Description:** This lesson plan will introduce students to potential environmental health hazards in their day-to-day environment. Students will be introduced to ToxMystery, a computer game activity, and either individually or in groups, they will find potential environmental health hazards in each room of the house that is presented by the game. They will then answer multiple choice questions posed by the game about the hazards they encounter and complete assigned activity sheets.

### National Science Educational Standards

#### Unifying Concepts and Processes:

- Understanding of evidence, models, and explanation
- Understanding of form and function

#### Science as Inquiry:

- Abilities necessary to do scientific inquiry
- Understanding about scientific inquiry

#### Science in Personal and Social Perspective:

- Personal health
- Types of resources
- Natural hazards
- Changes in environments
- Science and technology in society

#### History and Nature of Science

- Science as human endeavor
- Nature of science
- History of science

#### Learning Outcomes

Students will be able to:

- Compare and analyze appropriate uses for chemicals and other household products
- List and describe several chemicals and their potential dangers.

# ToxMystery Fill-in-the-Blank



### Word Box

Pesticide

Carbon Monoxide

Mothballs

Mercury

Solve the clues using the word box below and color each hazard BLUE.

1. I am a gas that you can't smell or taste. I can poison you if you breathe too much of me.

**What am I?** \_\_\_\_\_

2. I am used in sprays to kill bugs and fungus on houseplants. You should never touch, breathe, or swallow me.

**What am I?** \_\_\_\_\_

3. I contain poisonous fumes that are used to kill the moths that eat your clothes. Unfortunately, I can also harm humans, so be careful.

**What am I?** \_\_\_\_\_

# Ozone



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## Summary

Ozone is a gas. It can be good or bad, depending on where it is. "Good" ozone occurs naturally about 10 to 30 miles above the Earth's surface. It shields us from the sun's ultraviolet rays. Part of the good ozone layer is gone. Man-made chemicals have destroyed it. Without enough good ozone, people may get too much ultraviolet radiation. This may increase the risk of skin cancer, cataracts, and immune system problems.

"Bad" ozone is at ground level. It forms when pollutants from cars, factories, and other sources react chemically with sunlight. It is the main ingredient in [smog](#). It is usually worst in the summer. Breathing bad ozone can be harmful. It can cause coughing, throat irritation, worsening of [asthma](#), [bronchitis](#), and [emphysema](#). It can lead to permanent lung damage, if you are regularly exposed to it.

*Environmental Protection Agency*

## Start Here

- [Air Quality Guide for Ozone](#) (Environmental Protection Agency)  
Available in [Spanish](#)
- [Ozone](#)  (National Institute of Environmental Health Sciences)
- [Ozone \(Environmental Health Student Portal\)](#)  (National Library of Medicine)

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## Related Health Topics

[Air Pollution](#)

## National Institutes of Health

The primary NIH organization for research on [Ozone](#) is the [National Institute of Environmental Health Sciences](#)

MedlinePlus links to health information from the National Institutes of Health

**Search MedlinePlus for the topic page names to locate resources**



# Learning and Teaching about the Environment

K-12 students and educators need access to quality homework resources, lesson plans and project ideas to learn and teach about the environment. [Environmental education \(EE\)](#) is a multi-disciplinary approach to learning about environmental issues that enhances knowledge, builds critical thinking skills and helps students make informed and responsible decisions.

## Homework Help, Awards and Activities for K-12 Students



- [Homework resources](#)
- [Student awards and contests](#), including the President's Environmental Youth Award
- [Games, quizzes, and more](#)
- [Videos about the environment](#)

## Additional Resources for Educators and Education Professionals

## Classroom Resources and Project Ideas



- [Lesson plans, teacher guides and online resources for educators](#)
- [Community service project ideas](#)
- [Science fair project ideas](#)

## Healthy Schools, Healthy Kids

### News and Deadlines

- Congratulations to our latest [President's Environmental Youth Award](#) winners! Applications are now being accepted for the next cycle.
- Take a look at the newest [Campus RainWorks Challenge](#) winners.

### Find Local Resources

To find local resources or more information on inviting EPA staff to visit your school, talk to your [Regional Environmental Education Coordinator](#).

### Order Materials

URL for Learning and Teaching about the Environment (EPA)







# Fish Kids

## EPA'S Fish Kids Website

Join the Fisher Family  
on a day of fun

Grab a parent or teacher  
and choose your adventure!

Camping Trip

Shopping Trip

Sport Fishing Trip

PLAY MEMORY GAME

PLAY FISHING GAME!

FOR PARENTS

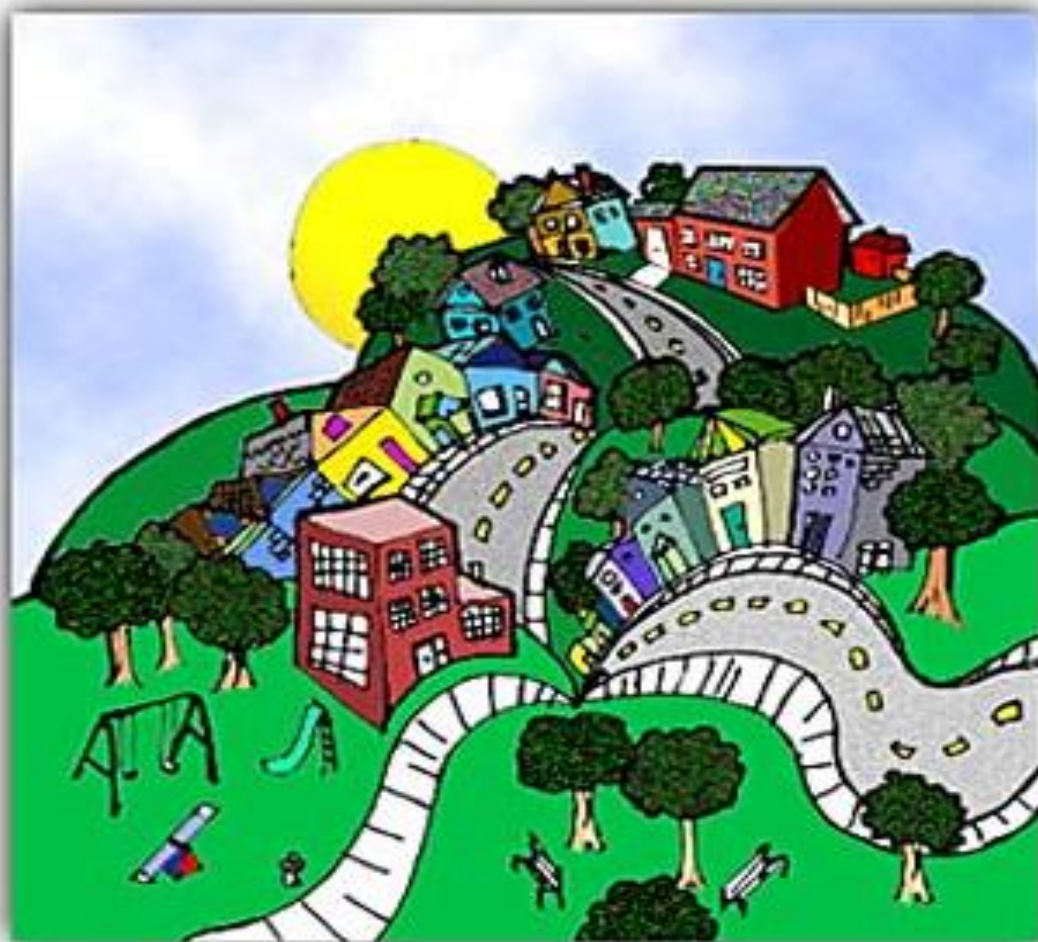
Picture Acknowledgements

URL for Fish Kids (EPA)



There are many household products used around your home. What do you know about them?

Join us for a house tour and learn more about the chemicals around your home.



URL for Learn About Chemicals Around Your House (EPA)





## Local Air Quality Conditions

Zip Code:

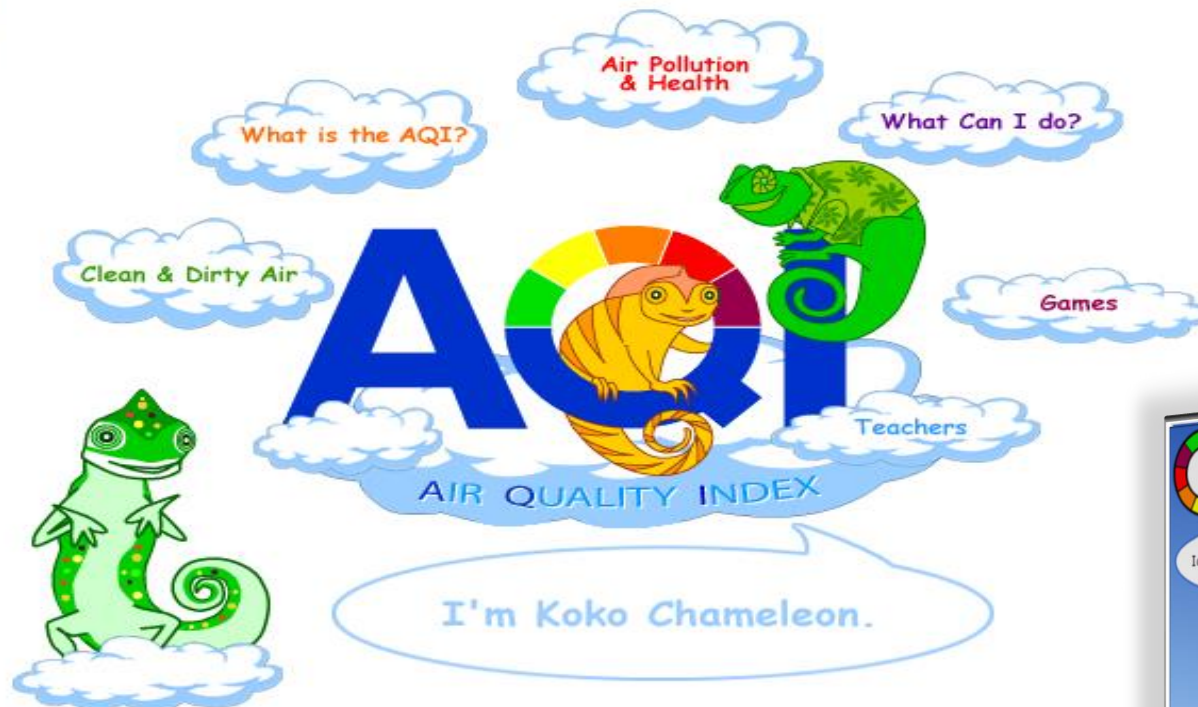
Go

State : Alabama

Go

National Summary

[En Español](#)



[EPA Home](#) | [OAR](#) | [AirNow](#) | [Kid's AIR](#) | [AQI Kids](#) | [Contact Us](#)



[URL](#) for AirNow (EPA)



# NLM's Online Exhibitions



# EXHIBITION PROGRAM

[ABOUT US](#)[EXHIBITIONS](#)[BOOK A TRAVELING EXHIBITION](#)[EDUCATION](#)[CONTACT US](#)[SITE MAP](#)

## EXHIBITIONS

VIEW CATEGORIES BY:

[MOST RECENT](#)[ALPHABETICALLY](#)

find an exhibition near you

### medicine & the arts



**FRANKENSTEIN:** Penetrating the  
Secrets of Nature



**AND THERE'S THE HUMOR OF IT:**  
Shakespeare and the Four Humors



**THE LITERATURE OF PRESCRIPTION:**  
Charlotte Perkins Gilman and "The  
Yellow Wallpaper"

[view more](#)[view all](#)

### science & society



**PICK YOUR POISON:** Intoxicating  
Pleasures & Medical Prescriptions



**FROM DNA TO BEER:** Harnessing  
Nature in Medicine and Industry

**AIDS**  
IT AIN'T OVER YET

**SURVIVING AND THRIVING:** AIDS,  
Politics and Culture

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### patients & practitioners



**PICTURES OF NURSING:** The  
Zwergling Postcard Collection



**THE HENKEL PHYSICIANS:** A Family's  
Life in Letters



**HEALING THE NATION:** Stories from  
the Civil War

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### the technology of medicine



**VISIBLE PROOFS:** Forensic Views of  
the Body



**THE ONCE AND FUTURE WEB:** Worlds  
Woven by Telegraph and Internet

URL for NLM's Exhibition Program

"Health is a reflection of a society"  
— Peoples' Health Movement, 2006



EXHIBIT

GUEST COLUMN



Courtesy CEPRODE

## DISASTER PRE

The Central American Disaster Information Network (CANDHI) provides the technology needed to access databases, publications, and online resources on disaster preparedness, and to connect to a web site that provides news, maps, local weather updates, and alerts.

[Click here to learn more](#) ►

◀ PREVIOUS TOPIC

NEXT TOPIC ▶

## ONLINE ACTIVITIES & RESOURCES



Test your knowledge of the world of global health in online activities, and take this topic into the classroom with resources for students and teachers.

[View Games & Lessons](#) ►

## DOWNLOADS

Hear more about global health topics from leaders and advocates featured in the exhibition.

[Get Downloads](#) ►

EXPLORE



MORE EXHIBITIONS



MORE EDUCATIONAL R



Grade Level: 3-6 grades

My *Agita* Brazil: Healthy Lifestyle

Description: This lesson incorporates visual materials from the *Against the Odds* exhibition to engage visual learners and to encourage students to apply a successful public health program to their own lives. Students learn about Brazilian students who adopt an active, healthy lifestyle through the *Agita São Paulo* program. Students connect with students in Brazil through their photos and drawings promoting various physical activities. Students also develop their own ideas on how to adopt an active, healthy lifestyle for themselves. Finally, students create materials to inform others about and persuade them to improve their health with 30 minutes of daily physical activity.

Learning outcomes: Students will be able to:

- Locate the continent of South America and the country of Brazil on a map of the world.
- Identify at least three different physical activities they can do for 30 minutes a day.
- Write and/or illustrate a message that promotes the importance of 30 minutes of daily physical activity.

Time Needed: Two 30-minute periods

Background information:

- *Against the Odds* exhibition provides brief background information on Brazil's [Agita São Paulo public health program](#).

Materials:

- Chalkboard and/or flip chart and markers
- A world map and (optional) a transparency of a map of Brazil with its capital, Brasília, São Paulo, and Amazon River, along with an image of the [Brazilian flag](#).
- [Notes for teachers for the visual materials](#) from the Brazil's *Agita* program
- *Agita São Paulo* visual materials:
  - ⇒ Physical activity pyramid drawings by Brazilian students: [Activity Pyramid 1](#), [Activity Pyramid 2](#)
  - ⇒ Two photos of *Agita São Paulo* events: [Event Photo 1](#), [Event Photo 2](#)
  - ⇒ [Agita's mascot clock](#)
  - ⇒ [Physical activity poster](#)
- [Agita: Dance Your Way to Health](#) story
- [Agita in Your Life](#) worksheet
- Colored markers or crayons
- Magazines and scissors
- Construction paper for posters
- Tape or glue (for display of the physical activity posters created by the class)

Lesson 1 Procedures:

Think-Pair-Share warm up

1. Write down the following two questions on the board or flip chart to assess students' knowledge and assumptions about the relationship between physical activities and health:
  - a. List three things you do that help you stay healthy.
  - b. How do these things keep you healthy?
2. Have students work in pairs to answer the two questions on the board or flip chart
3. Ask pairs to share their answers and record student responses—e.g., healthy eating habits, exercising, playing outside, walking, resting, sleeping, etc.



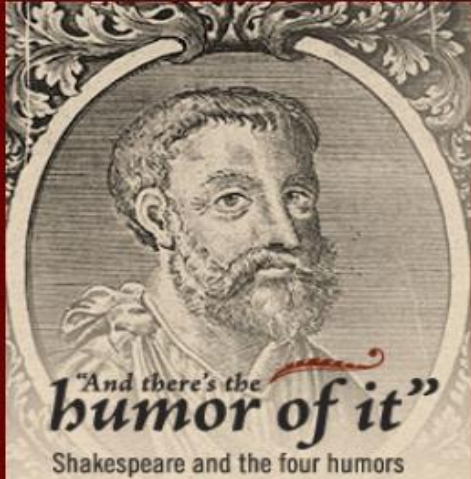
<http://www.nlm.nih.gov/againsttheodds/>

Page 1

**URL for Against the Odds Online Exhibition**







# Lesson Plans

## *Middle School*

### *The Four Humors: from Hippocrates to Shakespeare*

[Learning Outcomes](#) [Background Information](#) [Vocabulary](#) [Materials](#) [Class 1](#) [Class 2](#)  
[Evaluations](#) [Extension Opportunities](#) [Standards](#)

#### **Grade Level:**

5–8, in connection with the study of ancient civilizations

#### **Time Needed:**

two 45-minute periods

#### **Description:**

Students view primary and secondary sources related to the medical theory of the four humors and its influence on Shakespeare from the online exhibition, “*And there’s the humor of it*” *Shakespeare and the four humors*. In [Class 1](#), students learn about Hippocrates and Galen in the context of traditional Western medicine and humoral theory. Students also write on an exit slip their own thoughts on whether or how modern medicine considers the mind-body connection. In [Class 2](#), students examine the four humors as they relate to bodily fluids and temperaments that continued as an integral part of Western medicine’s view of the mind-body connection in Shakespeare’s time, using various primary visual sources. Afterwards, students consider the current understanding of the mind-body connection by reading two articles and writing an essay where they revise and elaborate on their exit slips written during [Class 1, Step 10](#).

Exhibition  
Education  
    Lesson Plans  
        Middle School  
        High School  
    Higher Education  
    Additional Resources  
Traveling Exhibition  
Credits  
Exhibition Program

[URL](#) for “And there’s the humor if it” Online Exhibition





# EVERY NECESSARY CARE & ATTENTION

GEORGE WASHINGTON  
& MEDICINE

## EDUCATION Lesson Plans

### Lesson Plans

- Primary Sources
- Then and Now

### Higher Education Modules

### Online Activities

### Other Resources

#### GEORGE WASHINGTON: Primary Sources

grade level 5–8 | subject - history and social studies



*George Washington and Primary Sources* is prepared in connection with the study of U.S. history, specifically the Revolutionary War period and George Washington. Students define what primary and secondary sources are. They then use and analyze several primary and secondary sources from the online exhibition to learn about how George Washington worked to ensure the health and safety of others under his care—troops, as well as family, servants, and slaves living at his Mount Vernon estate.

#### GEORGE WASHINGTON AND MEDICINE: Then and Now

grade level 7–9 | subject - history and social studies, health education



*George Washington and Medicine: Then and Now* engages students in examining primary and secondary sources from the exhibition to learn about several health issues and treatments that George Washington dealt with in caring for those under his charge—troops, family, servants, and slaves. Students consider the knowledge and practice of medicine during the American Revolutionary and Early Republic eras. They investigate how those health issues are being understood and treated in our own time and present their findings in posters as well as in written essays.

URL for Every Necessary Care & Attention Online Exhibition

[Home](#)[Exhibition](#)[Education](#)[Lesson Plans](#)[Higher Education](#)[Online Activities](#)[Additional Resources](#)[Traveling Info](#)[Credits](#)[Exhibition Program](#)

## LESSON PLANS

### Middle School Lesson Plan ►

*The U.S. Civil War: Wounded Soldiers, Disabled Veterans* is prepared for 5-8 grade classes. In this lesson, students examine several primary sources related to the Civil War, including photos and illustrations. They also use four sections from the Life and Limb: The Toll of the Civil War exhibition to consider causes and effects of the war-time medical practices that shaped the experiences of wounded soldiers, and the changing attitudes toward disabled veterans after the war.

### High School Lesson Plan ►

*The U.S. Civil War: Living With Battlefield Injuries* is designed for 9-12 grade classes. The lesson focuses on students' using primary sources and their transcripts in order to develop deeper understanding of short- and long-term impact of non-fatal Civil War casualties on Americans. Students first explore the Life and Limb exhibition as an introduction on the topic. They closely examine transcripts of several Civil War documents such as excerpts from a soldier's memoir, Senate Bill 173, poems of that era, and illustrations and photos of soldiers. Afterwards, students work in small groups and create political cartoons that reflect their understanding of the experiences and treatments of wounded and disabled soldiers during and after the war.



[URL](#) for Life and Limb Online Exhibition



# BINDING WOUNDS PUSHING BOUNDARIES

African Americans in Civil War Medicine

[HOME](#)[EXHIBITION](#)[EDUCATION](#)[TRAVELING INFORMATION](#)[CREDITS](#)[EXHIBITION PROGRAM](#)[Lesson Plans](#)[Higher Education](#)[Online Activities](#)[Additional Resources](#)

## Lesson Plans

[Elementary School](#) | [High School](#)

### Elementary Lesson Plan:

#### *African American Surgeons and Nurses in the U.S. Civil War*

[Learning Outcomes](#)[Materials](#)[Evaluations](#)[Background Information](#)[Class 1](#)[Extension Activities](#)[Vocabulary](#)[Class 2](#)[National Education Standards](#)

**Grade Level:** 4-6

**Time Needed:** two to three 40-minute class periods

**Description:** Students learn about four African American surgeons and nurses who served in the Union during the American Civil War. In [Class 1](#), students consider African Americans' experiences of being limited by others in what they could do due to slavery and prejudice against them. Students closely examine Dr. Augusta's letter to President Lincoln, written in 1863, as a case study of an African American who became a doctor and worked with African American soldiers in the Union army. In [Class 2](#) (and 3 if needed), students read the biographical sketches of Dr. Augusta and one of three other Civil War African American doctors and nurses. Students reflect upon what they have read and learned, and then write about that reflection.

[URL](#) for Binding Wounds Pushing Boundaries



## Education

HOME • EXHIBITION • **EDUCATION** • CREDITS



TRAVELING INFO

### Lesson Plans

- Activism and Healing
- Hawaiian Star Compass

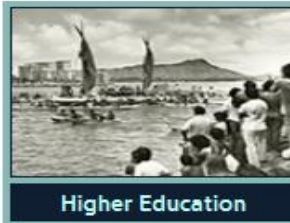
### Higher Education

### Online Activities

### Other Resources



Lesson Plans



Higher Education



Online Activities



Other Resources

## LESSON PLANS

### ACTIVISM AND HEALING: Kanaloa Kaho'olawe, a Hawaiian Island grade level: 5–8 | subject—history and social studies

The lesson plan engages students in exploring *A Voyage to Health*. Students demonstrate their comprehension of the online exhibition by creating a class timeline that chronicles key events related to Kanaloa Kaho'olawe, one of the Hawaiian Islands. They then use the timeline as a case study in identifying causes and consequences of each event, as well as consider how the perspectives may differ among different groups. This timeline case study allows students to examine a wide range of issues, such as how interpretation of events is influenced by cultural perspectives, how historical events influence physical and human geography, how belief systems and government policies can conflict, and how citizen actions can influence public policy. The activities in this lesson plan can be used in a variety of social study areas, such as United States history, the regions and cultures of the United States, world geography and cultures, global and environmental issues, government, and civil rights.

[URL](#) for A Voyage to Health





## EXHIBITION PROGRAM

National Library of Medicine  
Building 3B, Room 1E-21  
8600 Rockville Pike  
Bethesda, MD 20894  
nlmexhibition@mail.nih.gov  
www.nlm.nih.gov/exhibition/education.html  
www.facebook.com/NLMEducation

## EDUCATION SERVICES

above: A lecture program for Harry Potter's World, Renaissance Science, Magic, and Medicine at Mercer University, Macon Georgia.



*imagine history!*  
**reimagine your world**



# welcome!



above: Dr. Victoria Cargill from the Office of AIDS Research, National Institutes of Health addresses young visitors to *Against the Odds: Making a Difference in Global Health*

Exhibition Program Education Services engages, encourages, and serves educators, as well as students of all ages who are researching a topic or simply curious about the world around them. We develop resources that examine and interpret the ongoing interaction between science, society, and the humanities, in collaboration with educators and library professionals.



We provide online educational resources for elementary to higher education levels, as well as onsite exhibition tours, school field trips, and professional development programs for K-12 educators. For more information, please visit our website!



above right: Library Media Specialists from the District of Columbia public schools work together during a professional development session.

bottom right: "The World of Global Health" Interactive, *Against the Odds: Making a Difference in Global Health*

URL for Education Service Brochure





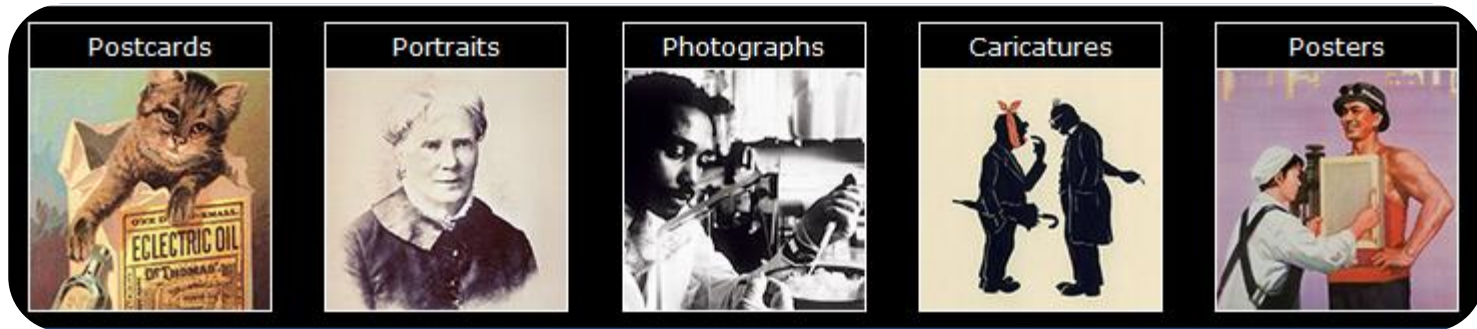
# Additional Resources/Services



# Images from the History of Medicine

Images from the History of Medicine (IHM) provides access to over 70,000 images dated from the 15<sup>th</sup> to the 21<sup>st</sup> century in the collections of the History of Medicine Division (HMD) of the U.S National Library of Medicine (NLM).

The collection includes:



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***Viewer discretion is advised.***

[URL](#) for Imagers from the History of Medicine web site



## Stay Connected with NN/LM MAR edit

- **Boost Box** - a monthly webinar to boost your knowledge of NLM products or other health information topics
- **Lunch with the RML** - a monthly webinar to share experiences and ideas with MAR staff and Network members
- **MAR-L Listserv** - Subscribe to weekly announcements to keep aware of breaking developments from NLM, funding opportunities, and other important information
- **The MARreport** - quarterly newsletter for the NN/LM Middle Atlantic Region
- **MARquee News Blog** - announcements, upcoming events, technology tips, etc.
- **Facebook** - "Like" us on the popular social networking site
- **Twitter** - Follow us on Twitter for information resources that you can use

(Add / Edit Text edit)

[Enable Box Comments](#)

## Evaluating Online Resources edit

## NLM and K-12 Professionals edit



Whether you work in a K-12 School, Community or Faith-Based Organization providing after school programming, NLM provides resources to help enrich your curriculum/program. The **National Library of Medicine (NLM)**, the world's largest medical library and a component of the National Institutes of Health, produces a variety of web-based resources for use by K-12 health and science educators.

Educators are welcome to review and use the modules or lesson plans, in whole or in-part, for their students' interests, levels and academic goals. These **resources** are designed to engage students' interest in and foster their analysis of a variety of health and science related topics.

Locate online resources in the following topics:

[General Health and Biology](#)

[Forensics and Medical Technology](#)

[Genetics](#)

[Environmental Health and Chemistry](#)

[Careers in Health Professions](#)

[Health Resources for Teens](#)

To request training on NLM resources for K-12 Professionals contact

[Remove Profile Boxes from Page](#)

## NN/LM MAR Consumer Health Coordinator edit



Lydia Collins

### Contact Info

NN/LM MAR  
 Health Sciences Library System  
 University of Pittsburgh  
 200 Scaife Hall  
 3550 Terrace Street  
 Pittsburgh, PA 15261  
 412.624.1411  
[Send Email](#)

### Links:

[Profile & Guides](#)

### Subjects:

[Consumer Health](#)

## MedlinePlus Magazine edit



**URL for K-12 Professionals Resource Guide**





## NN/LM MAR Training

NN/LM MAR  
 Training & Educational  
 Opportunities



NN/LM MAR staff provide no-cost training session on health information resources, with an emphasis on free resources from the National Library of Medicine. Locate information about upcoming trainings and see past offerings.

- [NN/LM MAR Training & Educational Opportunities](#)
- [NN/LM MAR and the National Training Center upcoming courses](#)  
View all upcoming courses offered by NN/LM MAR Coordinators and the National Training Center (NTC).
- [NN/LM MAR Current Class Offerings Descriptions](#)  
View NN/LM MAR class descriptions (LibGuide) for classes that are currently being offered.

## Welcome to NN/LM MAR Information for Public Libraries



The National Library of Medicine ([NLM](#)) Provides freely available resources on a variety of topics for use by Public Libraries to use in their communities. Locate resources by subject using the information compiled by the Consumer Health Coordinator at the National Network of Libraries of Medicine, Middle Atlantic Region ([NN/LM MAR](#)).

### Highlighted Resources by Population/Topic:

[Adult/General/Senior Health](#)

[Health Resources for Teens](#)

[NLM's K-12 Resources](#)

[Consumer Health](#)

[Finding Health and Wellness @ the Library: A Consumer Health Toolkit for Library Staff 2nd edition](#)

[Affordable Care Act Information](#)

[Health Resources in Multiple Languages](#)

If you have any questions or would like training on the resources listed, please contact NN/LM MAR via e-mail, [nnlmmar@pitt.edu](mailto:nnlmmar@pitt.edu) or via telephone (800) 338-7657.

## NN/LM MAR Consumer Health Coordinator



Lydia Collins

### Contact Info

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### Links:

[Profile & Guides](#)

### Subjects:

[Consumer Health K-12](#)  
[Professionals Outreach Health](#)  
[Literacy Outreach to Soldiers, Veterans and Military Families](#)  
[Outreach to Underrepresented and Minority Populations Outreach to Seniors](#)

## MedlinePlus Magazine

URL for Public Libraries Resource Guide



# MedlinePlus Magazine

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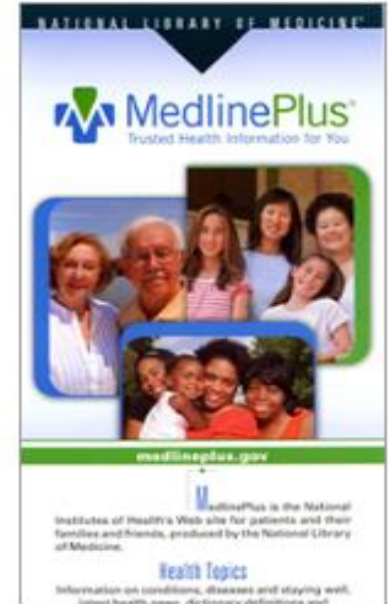
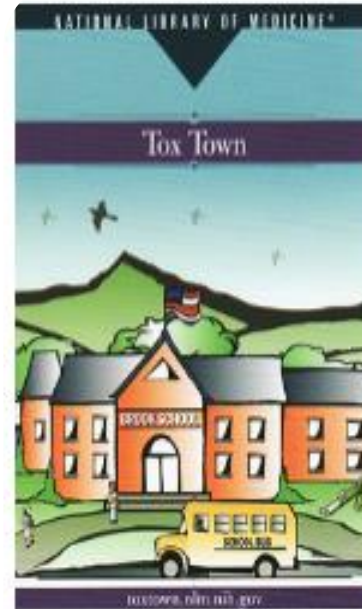
Spanish available also



[URL](#) for MedlinePlus Magazine  
[URL](#) to order in bulk

# NLM Educational & Printed Materials

If you are an NN/LM network member you may order educational and printed materials online from your regional NN/LM office.



[URL](#) for Ordering Materials from NN/LM MAR (DE, NJ, NY & PA)







# Join NN/LM

Members of the National Network of Libraries of Medicine (NN/LM) provide health professionals and the general public with health information resources and services.

Network Members receive a variety of benefits and services, including:

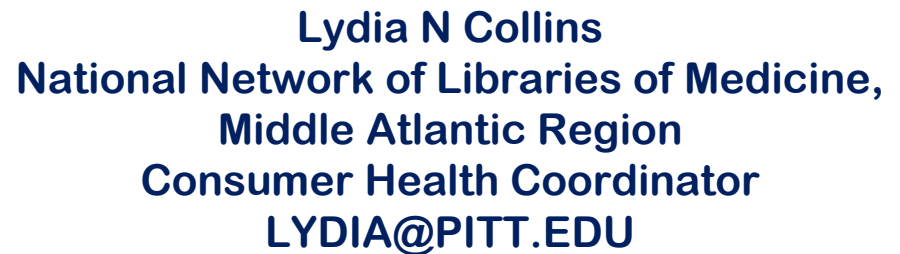
Membership Benefit Comparison

Benefits	Full Members	Affiliate Members
Eligibility for award <a href="#">funding</a> for health information access and other projects	X	X
<a href="#">Training and educational opportunities</a> for librarians, health professionals, and consumers	X	X
Opportunities to partner with other health sciences libraries or health-related information centers	X	X
Obtain <a href="#">educational and printed materials</a> for NLM posters, brochures, bookmarks, and other publications	X	X
Opportunities to request an <a href="#">NLM Traveling Exhibition</a>  to visit your library or organization	X	X
Opportunities to provide input on regional NN/LM programs and services	X	X
A certificate recognizing your institution, library or organization as a NN/LM member	X	X
Access to <a href="#">DOCLINE</a>  , the interlibrary loan system used by health sciences libraries	X	

[URL](#) for NN/LM MAR Membership (DE, NJ, NY & PA)

[URL](#) for NN/LM to locate your Regional Medical Library for membership information



[illegible]

*This project has been funded in whole or in part with Federal funds from the National Library of Medicine, National Institutes of Health, Department of Health and Human Services, under Contract No. HHS-N-276-2011-00003-C with the University of Pittsburgh, Health Sciences Library System.*